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ABSTRACT

This report presents an evaluation of the Transitional Bilingual Education Project (TBEP), an Elementary and Secondary Education Act Title VII-funded project in its third year of operation at P.S. 9 and P.S. 133 in Brooklyn, New York. The project served 128 limited English proficient students, focusing on the provision of structured English and native language instruction to allow each child to achieve competence in English while facilitating progress in content areas. The project emphasized the teaching of English as a Second Language (ESL) and the use of computers. It also provided staff development and parent workshops. TBEP met it content area, staff development, and parental involvement objectives. The project did not meet its objectives for ESL or development of English language skills through computer-assisted instruction. The project partially met its objective for native language arts, meeting it at P.S. 9 but not at P.S. 133. Three appendixes include a list of instructional materials used, class schedules, and a staff survey questionnaire. (MDM)

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OER Report

Transitional Bilingual Education Project
Community School District 13
Transitional Bilingual Education Grant T003A00121
FINAL EVALUATION REPORT
1992-93

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Transitional Bilingual Education Project
Community School District 13
Transitional Bilingual Education Grant T003A00121
FINAL EVALUATION REPORT
1992-93

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EXECUTIVE SUMMARY

The Transitional Bilingual Education Project, an Elementary and Secondary Education Act (E.S.E.A.) Title VII-funded project, was in its third year. The project functioned at P.S. 9 and P.S. 133 in Community School District (C.S.D.) 13 in Brooklyn. In the year under review, the Transitional Bilingual Education Project served 128 limited English proficient (LEP) students. The focus of the project was to provide structured English and native language instruction to allow each child to achieve competence in English while facilitating progress in the content areas. In order to meet this goal, the project emphasized the teaching of English as a second language (E.S.L.) and the use of computers.

The Transitional Bilingual Education Project provided staff development workshops and meetings throughout the year. Parent workshops were also offered and were well attended.

The project met its content area, staff development, and parental involvement objectives. The project did not meet its objectives for E.S.L., or development of English language skills through computer-assisted instruction (C.A.I.). The project partially met its objective for native language arts (N.L.A.), meeting it at P.S. 9, but not at P.S. 133.

The conclusions, based on the findings of this evaluation, lead to the following recommendations:

- Examine ways of increasing students' English language skills. Consider using peer tutoring to facilitate learning.
- Explore ways to use C.A.I. to enhance skills in English reading, writing, and critical thinking.
- Employ techniques to increase students' acquisition of N.L.A. skills at P.S. 133, possibly by transferring techniques used at P.S. 9.

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I. INTRODUCTION

This report documents the evaluation by the Office of Research, Evaluation, and Assessment (OREA) of the Elementary and Secondary Education Act (E.S.E.A.) Title VII-funded Transitional Bilingual Education Project in its third year in 1992-93.

PROJECT CONTEXT

The project operated at P.S. 9 and P.S. 133 in Community School District (C.S.D.) 13 in Brooklyn. C.S.D. 13 had a large population of LEP students, predominantly of Latino background.

P.S. 9 was housed in a modern building and was well-maintained. Bulletin boards in hallways held many examples of students' work.

Of the 961 students who were enrolled at P.S. 9, 88.6 percent (851) were African-American, 10 percent (96) Latino, 0.7 percent (7) European-American, and 0.7 percent (7) Asian-American. Ninety-two percent of the students at this site were eligible for the free-lunch program, an indicator of low family income. Twelve percent of the students were of limited English proficiency (LEP).

Of the 341 students enrolled at P.S. 133, 55.4 percent (189) were Latino, 41.3 percent (141) African-American, 2.1 percent (7) European-American, and 1.2 percent (4) Asian-American. Ninety percent of the students were eligible for the free-lunch program. Twenty-two percent of the students were LEP.

STUDENT CHARACTERISTICS

The Transitional Bilingual Education Project served a total of 128 Spanish-speaking LEP students. LEP status was determined by scores at or below the 40th percentile on the Language Assessment Battery (LAB). At P.S. 9, the project served students in grades one through four; at P.S. 133, it served students in kindergarten through grade four as well as those in a fourth/fifth grade bridge class. (See Table 1.) Male students numbered 69 (53.9 percent) and female 59 (46.1 percent).

TABLE 1

Number of Students in the Transitional Bilingual Education Project, by Site and Grade

Site	K	1	2	3	4	5	Total
P.S. 9	--	11	12	9	8	--	40
P.S. 133	11	20	21	15	15	6	88
Total	11	31	33	24	23	6	128

Most of the students were born on the United States mainland (75.0 percent) or in Puerto Rico (11.7 percent). (See Table 2.) Ninety-nine percent of project participants came from low-income families and were eligible for the free-lunch program.

Needs Assessment

Before instituting the project, C.S.D. 13 identified two schools, P.S. 9 and P.S 133, as having the largest populations of LEP students who would benefit from bilingual education and instruction in English as a second language (E.S.L.). It was also determined that parents needed greater involvement in their childrens' education.

TABLE 2

Students' Countries of Origin

Country	Number of Students
United States	96
Puerto Rico	15
Dominican Republic	7
Mexico	6
Colombia	1
Guatemala	1
Panama	1
Honduras	1
Total	128

PROJECT OBJECTIVES

Student Objectives

- A minimum of 75 percent of the students participating in the program will demonstrate improved proficiency in listening with understanding, speaking, reading, and writing the second language (English) by obtaining scores above the 40th percentile on the Language Assessment Battery (LAB) as a result of participating in the transitional bilingual, E.S.L., and computer program.

- A minimum of 75 percent of the students participating in the program will demonstrate an understanding of and ability to use software programs to develop English language skills though computer-assisted instruction (C.A.I.) with an emphasis in English reading, writing, and critical thinking skills through wordprocessing programs as measured by a comparison of the results of teacher-prepared curriculum learning objective (CLO) criterion referenced pretest and posttest in English writing and critical thinking skills as well as citywide reading tests.

- A minimum of 75 percent of the students participating in the program will demonstrate one year's growth in reading in the native language as measured by a comparison of the results for the program year and the prior year in the Spanish Assessment of Basic Education (SABE).

- A minimum of 75 percent of the students participating in the program will demonstrate mastery of the concepts presented in mathematics, science, and social studies instruction which correspond to their grade level as measured by a comparison of the results for the program year and the prior year in districtwide curriculum learning objective (CLO) tests in science and social studies as well as in mathematics, as measured by the citywide mathematics test.

Staff Development Objective

- A minimum of 75 percent of the teachers participating in the staff development program as well as related courses at institutions of higher education will demonstrate understanding of the philosophy of the transitional bilingual education program as measured by project-related questionnaires and records of formal observation of performance by project and school supervisors.

Parental Involvement Objective

- A minimum of 75 percent of the parents of the students participating in the program will demonstrate greater understanding and involvement in school-related activities as evidenced by records of their attendance at meetings and other school-related functions.

PROJECT IMPLEMENTATION

During the 1992-93 school year, the Transitional Bilingual Education Project provided instructional and support service to 128 LEP students and their families. The project focused on structured English-language instruction and instruction in the native language to allow each child to achieve competence in English while promoting growth in the content areas. The project emphasized E.S.L. and computer-assisted instruction (C.A.I.).

Capacity Building

The project was refunded by Title VII for the two years following the one under review. The project also intends to use Part 154 and Chapter 1 monies for instructional materials.

Materials, Methods, and Techniques

In the lower grades, students received content area instruction in the native language. In the upper grades, content area instruction was in English with an E.S.L. approach or in English supplemented by the native language, depending on their needs. Teachers of participating students used a wide array of strategies and techniques including role playing, experience charts, total physical response, and the whole and natural language approaches. The project also offered C.A.I.

For a list of instructional materials used, see Appendix A.

Staff Qualifications

Title VII staff. The project's coordinator was funded by Title VII, held a master's degree and was teaching proficient* in Spanish. The coordinator held licenses in bilingual education, E.S.L., and administration. The responsibilities of the project coordinator included approving and disseminating curriculum materials; observing teachers; providing advisement to school supervisors, community superintendents, and the school board; interviewing personnel; and coordinating parents' meetings and staff development activities.

Other staff. Eight of the ten teachers working with project students were paid through tax levy funding, and two were paid though other funding sources, such as Part 154 and Chapter 1/P.C.E.N. For a list of degrees, certifications and licenses, and language proficiency (teaching or communicative*), see Table 3. All teachers were certified in the areas they taught.

Staff development. Staff workshops and meetings were held throughout the year. Topics included "Hands-On Math," "Hands-On Science," the SABE, El Examen de Lectura en Español (ELE), and a Title VII program overview.

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*Teaching proficiency (TP) is defined as the ability to use LEP students' native language in teaching language arts or other academic subjects. Communicative proficiency (CP) is defined as a non-native speaker's basic ability to communicate and interact with students in their native language.

TABLE 3

Non-Title VII Staff Qualifications

Title	Degree(s)	Certificates/Licenses	Language Proficiency
10 Teachers	9 B.A. 1 M.S.	3 E.S.L./Bilingual 3 Bilingual 1 Bilingual Common Branches 1 E.S.L. 2 Common Branches	5 Spanish (TP) 5 Spanish (CP)

Instructional Time Spent on Particular Tasks

See Appendix B for an example of a class schedule.

Length of Time Participants Received Instruction

Students had a mean of 0.2 years (s.d.=.7) of education in a non-English-speaking school system and 3.0 years (s.d=1.5) of education in the United States. Average participation in the project was 10 months.

Activities to Improve Pre-referral Evaluation Procedures for Exceptional Students

Project sites did not offer special programs for gifted and talented students. Such students would be referred to another school in the district. Students who were thought to be in need of special education services were referred to the School-Based Support Team (S.B.S.T.) for evaluation. Each site had a Spanish-speaking social worker as a member of the S.B.S.T.

PARENT AND COMMUNITY INVOLVEMENT ACTIVITIES

Parent workshops were held throughout the year and were well attended. Topics included E.S.L. and bilingual programs, assisting children with homework, and the operation and future of the project.

II. EVALUATION METHODOLOGY

EVALUATION DESIGN

Project Group's Educational Progress as Compared to That of an Appropriate Non-Project Group

OREA used a gap reduction design to evaluate the effect of language instruction on project students's performance on standardized tests. Because of the difficulty in finding a valid comparison group, OREA used instead the groups on which the tests were normed. Test scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.1. It is assumed that the norm group has a zero gain in N.C.E.s in the absence of supplementary instruction and that participating students' gains are attributable to project services.

Applicability of Conclusions to All Persons Served by Project

Data were collected from all participating students for whom there were pre- and posttest scores. (There were no pretest data on students who entered the program late; therefore, posttest data for them will serve as pretest data for the following year.) Instruments used to measure educational progress were appropriate for the students involved. The LAB, Degrees of Reading Power (D.R.P.), and Metropolitan Achievement Test (MAT) (replaced by the California Achievement Test [CAT] in spring 1993) are used throughout New York City to assess the growth of English and mathematics skills in populations similar to those served by the Transitional Bilingual Education Project.

INSTRUMENTS OF MEASUREMENT

OREA compared pre- and posttest scores on the LAB to assess the E.S.L. objective, and the SABE to assess the N.L.A. objective. The objective for development of English language skills through C.A.I. was assessed by D.R.P. scores. The science and social studies components of the content area objective were assessed through course grades since the districtwide curriculum learning objective tests called for were not available.

All students were tested at the appropriate grade level. The language of the LAB was determined by the test itself, whereas the language of the MAT-Math and Math Concepts and Applications subtest of the CAT was determined by the language in which the students received instruction in mathematics.

According to the publishers' test manuals, all standardized tests used to gauge project students' progress are valid and reliable. Evidence supporting both content and construct validity is available for the LAB. Content validity is confirmed by an item-objective match and includes grade-by-grade item difficulties, correlations between subtests, and the relationship between the performance of students who are native speakers of English and students who are LEP. To support reliability, the Kuder-Richardson Formula 20 (KR20) coefficients and standard errors of measurement (SEM) are reported by grade and by form for each subtest and total test. Grade reliability coefficients, based on the performance of LEP students on the English version, ranged from .88 to .96 for individual subtests and from .95 to .98 for the total test.

For the Math Concepts and Applications Subtest of the CAT, content validity was determined by comparing the content descriptions and the test items with particular curriculum objectives. The KR20 was used as a measure of internal consistency. The SEM is also reported in order to indicate the range within which students' true scores are likely to fall. For the Math Concepts and Applications subtest given in second through eighth grade, the number of items ranged from 42 to 50. KR20 coefficients ranged form 0.88 to 0.91; SEM ranged from 2.55 to 3.09 raw score units.

The mathematics component of the content area objective posed special difficulties for evaluation. In the year under review, the Board of Education adopted the Concepts and Applications subtest of the CAT as a citywide mathematics test. This instrument differs in approach and emphasis from the MAT, which students took the previous year. It is difficult to compare results from one instrument to the other. On account of language-specific adaptations in the versions of each test, these difficulties are particularly acute in the case of students who took the test in a language other than English. For the evaluation of bilingual programs in the year under review, therefore, OREA is reporting CAT scores without attempting to compute pre/post gains. In the following year, when both pre- and posttest scores will be fully comparable, the mathematics objective will be evaluated as written.

Evidence is available to support the validity of the D.R.P. The D.R.P. is an objective-referenced test, with the single outcome objective being the comprehension of expository English text. Criterion validity of the D.R.P. is demonstrated by the

presence of a correlation (r=.90) with results from a criterion-referenced instrument, the Word Completion Test. To support reliability, the KR20 coefficients and SEM are reported by grade. Reliability coefficients ranged from .91 to .97 for students in the second through the tenth grade; the SEM ranged from 2.6 to 3.8 raw score units.

The SABE was designed to provide a valid measurement of skills in reading and mathematics for students receiving instruction in Spanish. Items were chosen to reflect current curriculum guides in order to assess students' understanding of broad concepts rather than their understanding of content specific to any particular instructional program. Reviewers from Cuban-American, Mexican-American and Puerto Rican backgrounds evaluated all Spanish-language test items and directions, identifying regional nuances that might introduce bias. A group of bilingual educators reviewed test materials for format, content, level of instructional difficulty, and appropriateness to methods and curricula used in bilingual educational programs. Concurrent validation was examined by correlating test items with comparable items on the Comprehensive Tests of Basic Skills, Form U.

To assess the objective for staff development, OREA developed an evaluation questionnaire for teachers (see Appendix C).

DATA COLLECTION AND ANALYSIS

Data Collection

To gather qualitative data, an OREA evaluation consultant carried out on-site and telephone interviews with the project director several times during the school year and also observed two classes on each of two visits. The project evaluator

collected the data and prepared the final evaluation report in accordance with the New York State E.S.E.A. Title VII Bilingual Education Final Evaluation Report format, which was adapted from a checklist developed by the staff of the Evaluation Assistance Center (EAC) East in consultation with the Office of Bilingual Education and Minority Language Affairs (OBEMLA).

Proper Administration of Instruments

Qualified personnel received training in testing procedures and administered the tests. Test administrators followed guidelines set forth in the manuals accompanying standardized tests. Time limits for subtests were adhered to; directions were given exactly as presented in the manual.

Testing at Twelve-Month Intervals

Standardized tests were given at 12-month intervals, following published norming dates.

Data Analysis

Accurate scoring and transcription of results. Scoring, score conversions, and data processing were accomplished electronically by the Scan Center of the Board of Education of the City of New York. Data provided by the Scan Center were analyzed in the Bilingual, Multicultural, and Early Childhood Evaluation Unit of OREA. Data collectors, processors, and analysts were unbiased and had no vested interest in the success of the project.

Use of analyses and reporting procedures appropriate for obtained data. To assess the significance of students' achievement in English, OREA computed a correlated *t*-test on LAB and scores. The *t*-test determined whether the difference between the pre- and posttest scores was significantly greater than would be expected from chance variation alone.

The only possible threat to the validity of the above instruments might be that LAB norms were based on the performance of English Proficient (EP) rather than LEP students. Since OREA was examining gains, however, this threat was inconsequential—the choice of norming groups should not affect the existence of gains.

III. FINDINGS

PARTICIPANTS' EDUCATIONAL PROGRESS

The Transitional Bilingual Education Project carried out all instructional activities specified in its original design. Students received computer training in addition to instruction in E.S.L., N.L.A, and the content areas.

The focus of the project was to include structured English language instruction and instruction in the native language to the degree necessary to allow each child to achieve competence in English while promoting growth in the content areas. To meet this goal, the project emphasized E.S.L. and C.A.I.

LEP Participant's Progress in English

E.S.L. classes were given five times per week. Instructional strategies for E.S.L. included cooperative learning, the whole language approach, role playing, experience charts, a buddy system, the natural language approach, and total physical response.

An OREA evaluation consultant observed a bridge fourth/fifth grade Spanish bilingual class at P.S. 133. Students' work was prominent around the room. The teacher presented vocabulary from the book, *Tales of Olga da Polga*. Each student had a copy and had to define words from it, using the glossary if necessary. The students were divided into four reading groups of four or five students, each with a student leader. The students took turns reading, and the leader helped with pronunciation. Other students also assisted in a cooperative learning environment. The teacher worked with two students on word attack skills, using flash cards. At the

end of the lesson, the teacher had students from each group tell different parts of the story. It was evident that the teacher had prepared the students thoroughly for this experience; the activity was meaningful, and all students participated readily.

The evaluation consultant also observed a first grade Spanish bilingual class. The room was well decorated with samples of the students' work. The teacher led a communications game called "In the Bay." Each student was given an opportunity to select a card with a picture on one side and questions on the other. The student then asked questions about the picture, or the teacher would ask the questions on the card. If necessary, the teacher would structure what the students said, to make sure that they spoke in complete sentences. The students enjoyed the activity. Communication was mainly in English and occasionally in Spanish.

The consultant observed a second grade Spanish bilingual class at P.S. 9. The room was organized into learning centers. (The mathematics area was a mock market where students could buy and sell foods.) A notice cautioned the students to count their play money carefully. There were many mobiles hanging in the room, and samples of arts and crafts were displayed. The teacher asked the students questions about the days of the week, the date, the year, and the weather. She used charts, diagrams, a calendar, a thermometer and flash cards. The students had to say the day and year in English and in Spanish. After a detailed discussion, during which the students answered the teacher's questions and asked her questions in turn, the teacher had the students do a writing exercise. As the students worked independently, the teacher worked with individual students at the chalkboard. She

asked the students to draw a picture describing the first and second stanzas of the poem they were discussing. The students were attentive and demonstrated good work habits.

The evaluation objectives for English language development were:

- A minimum of 75 percent of the students participating in the program will demonstrate improved proficiency in listening with understanding, speaking, reading and writing the second language (English) by obtaining scores above the 40th percentile on the Language Assessment Battery (LAB) as a result of participating in the transitional bilingual, E.S.L. and computer program.

There were complete pre- and posttest scores on the LAB for 68 students from kindergarten through fifth grade. (See Table 4.) Overall, 50 percent of the students showed a gain. Students showed a mean gain of 5.78 N.C.E.s (s.d.=15.1), which was statistically significant ($p<.05$). Eighteen percent of students obtained scores above the 40th percentile.

The project did not meet its objective for English language development as measured by the LAB.

TABLE 4

Pretest/Posttest N.C.E. Differences on the
Language Assessment Battery (LAB), by Site

Site	Total number of project students	Number of students for whom data were available	Pretest		Posttest		Difference		*t* value
			Mean	S.D.	Mean	S.D.	Mean	S.D.	
P.S. 9	40	25	25.0	12.5	25.2	12.4	0.1	10.4	.06
P.S. 133	88	43	20.1	12.8	29.2	18.5	9.1	16.5	3.61
Total	128	68	21.9	12.8	27.7	16.6	5.8	15.1	3.16

- At both sites, students did not show significant gains on the LAB at either site.

- A minimum of 75 percent of the students participating in the program will demonstrate an understanding of and ability to use software programs to develop English language skills though computer assisted instruction (CAI) with an emphasis in English reading, writing, and critical thinking skills through word-processing programs as measured by a comparison of the results of teacher prepared Curriculum learning objective (CLO) criterion referenced pretest and posttest in English writing and critical thinking skills as well as citywide reading tests.

The criterion-referenced pretest and posttest was not available, so O.R.E.A. examined D.R.P. scores instead. Scores were available for 33 students. Sixty-four percent of the students demonstrated a pre- to posttest gain. There was a mean gain of 0.85 (s.d.=0.82), which was not significant ($p>.05$). (See Table 5.)

The project did not meet its objective for the development of English language, as measured by the D.R.P.

LEP Participant's Progress in Native Language

An OREA consultant observed a bilingual first grade class. The classroom was well decorated. All curriculum areas were defined, and samples of the children's work were displayed. The teacher administered a 20-word Spanish spelling test. Students sat in the meeting area while the teacher corrected the test and asked individuals to write problem words on the chalkboard. She taught the students how to pick out parts of each word and concentrate on learning them.

The teacher made a smooth transition to the next lesson, which was in mathematics. The students sat in the meeting place and were given small copies of *Never Snap at a Bubble*. The teacher read aloud from her copy.

TABLE 5

Pretest/Posttest N.C.E. Differences on the
Degrees of Reading Power (D.R.P.) Test, by Site

Site	Total number of project students	Number of students for whom data were available	Pretest		Posttest		Difference		*t* value
			Mean	S.D.	Mean	S.D.	Mean	S.D.	
P.S. 9	40	7	38.9	9.9	39.1	19.0	0.28	13.2	0.06
P.S. 133	88	26	32.5	22.9	33.5	24.6	1.0	23.9	0.21
Total	128	33	33.8	20.9	34.7	23.4	0.85	21.9	0.22

- At both sites, students did not show significant gains on the D.R.P.

The teacher made good use of the relaxed, informal atmosphere. It was apparent that the students had been well instructed in routines as they moved from one activity to the other and worked independently. The instructional strategies used for N.L.A. were the same as those used for E.S.L.

The evaluation objective for native language development was:

- A minimum of 75 percent of the students participating in the program will demonstrate one year's growth in reading in the native language as measured by a comparison of the results for the program year and the prior year in the Spanish Assessment of Basic Education (SABE).

There were complete pre- and posttest scores on the SABE for 68 students. Of these students, 71 percent showed improvement from pretest to posttest. (See Table 6.)

The project partially met its native language development objective, meeting it at P.S. 9 but not at P.S. 133.

TABLE 6

Pretest/Posttest Differences on
the Spanish Assessment of Basic Education (SABE), by Site

Site	Total number of project students	Number of students for whom data were available	Number of students showing a pre/posttest increase	Percentage of students showing a pre/posttest increase
P.S. 9	40	28	26	93
P.S. 133	88	40	22	55
Total	128	68	48	71

LEP Participant's Academic Achievement

Instructional strategies used for the content areas included modeling and the multisensory approach.

The project proposed one objective in the content areas:

- A minimum of 75 percent of the students participating in the program will demonstrate mastery of the concepts presented in mathematics, science, and social studies instruction which correspond to their grade level as measured by a comparison of the results for the program year and the prior year in districtwide curriculum learning objective tests in science and social studies as well as in mathematics as measured by the citywide mathematics test.

Final course grades were used to measure this objective for science and social studies since districtwide curriculum learning objective tests were not available. For reasons explained in the chapter on Evaluation Methodology OREA did not attempt to compute pre/posttest gains on the MAT-Math/CAT. Instead, OREA examined final course grades for mathematics. Ninety-six percent of students passed mathematics, 97 percent passed science, and 97 percent passed social studies.

The project met its content area objective.

FORMER PARTICIPANTS' PROGRESS IN ENGLISH LANGUAGE CLASSROOMS

Data on former project students were not available.

OVERALL EDUCATIONAL PROGRESS ACHIEVED THROUGH PROJECT

Mainstreaming

Twenty (15.6 percent) students were mainstreamed. The project did not propose an objective for mainstreaming. Since OREA did not evaluate this project last year, mainstreaming data were not available.

Grade Retention

The project did not propose any objectives for reducing grade retention. Six project students (4.7 percent) were retained in grade this year. Since OREA did not evaluate this project last year, data on grade retention were not available.

Attendance

The Transitional Bilingual Education Project did not propose any objectives for attendance. Project students' attendance rate at P.S. 9 was 87.1 percent, compared with the schoolwide attendance rate of 91.4 percent. Project students' attendance rate at P.S. 133 was 87.9 percent as compared with the schoolwide rate of 90.5 percent. Since OREA did not evaluate this project last year, attendance data were not available.

Placement in Gifted and Talented Programs

Gifted and talented students could be transferred to a school in the district that offered special programs. No project students were placed in these programs. Since OREA did not evaluate this project last year, data were not available on placement in gifted and talented programs.

CASE STUDY

Y.B. came from a monolingual Spanish-speaking home. Her parents were born in the Dominican Republic. Upon entering kindergarten in September 1990, she scored in the third percentile on the English LAB and in the 40th percentile on the Spanish version. Her language dominance and preference were clearly Spanish.

The availability of instructional materials, including computers, and the support provided by the staff allowed Y.B. to improve in English and increase her Spanish reading skills.

STAFF DEVELOPMENT OUTCOMES

- A minimum of 75 percent of the teachers participating in the staff development program as well as related courses at institutions of higher education will demonstrate understanding of the philosophy of the transitional bilingual education program as measured by project-related questionnaires and records of formal observation of performance by project and school supervisors.

All project teachers participated in staff development. To measure this objective, OREA provided a questionnaire and the answers indicated that all teachers demonstrated an understanding of the philosophy of the transitional bilingual education program.

The project met its objective for staff development.

PARENTAL INVOLVEMENT OUTCOMES

- A minimum of 75 percent of the parents of the students participating in the program will demonstrate greater understanding and involvement in school-related activities as evidenced by records of their attendance at meetings and other school-related functions.

According to the project director, parents of project students showed greater interest and a higher participation rate than mainstream parents in school-related activities. These included a Food Festival, Spring Festival, and a celebration of Puerto Rican Heritage month.

The project offered parents workshops on such topics as the philosophy of bilingual education programs and computer usage. Parents' understanding of the program was evidenced by their verbal feedback. Eighty percent of project parents participated.

The project met its objective for parental involvement.

IV. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

ACHIEVEMENT OF OBJECTIVES

The project met its content area, staff development, and parental involvement objectives. It did not meet its objectives for E.S.L. or development of English language skills through C.A.I. The project partially met its objective for N.L.A., meeting it at P.S. 9 but not at P.S. 133.

Project services not only benefited the students academically but also increased awareness of their own and other cultures. Teachers were given the opportunity to learn about the philosophy of transitional bilingual education and improve their teaching techniques by attending staff development activities. Parents of participants benefited from the activities that the project offered throughout the year.

MOST AND LEAST EFFECTIVE COMPONENTS

The project director indicated that staff development was highly effective. Parental involvement increased this year, and the workshops were well received. The use of C.A.I. may have been the least effective component of the project, since it did not seem to help students develop their English language skills.

RECOMMENDATIONS TO ENHANCE PROJECT EFFECTIVENESS

- Examine ways of increasing students' English language skills. Consider using peer tutoring to facilitate learning.

- Explore additional ways to use C.A.I. to enhance skills in English reading, writing, and critical thinking.

- Employ techniques to increase students' acquisition of N.L.A. skills at P.S. 133, possibly by transferring techniques used at P.S. 9.

APPENDIX A

Instructional Materials

Mathematics

Addison-Wesley

Las Matematicas Text Grades 1-6

Science

Modern Curriculum Press

Como Funcione el Cuerpo
Complete Concept Science (en Español)
Developing Spanish Language Set

Regents Publishing Company

From Sea to Shining Sea
Unusual Stories from Many Lands
Stories from Latin America
Science for Language Learners
Reading for a Reason

Native Language Arts

Lectorum

La Pata Pita
Español 1-4
Vamos a Escribir Grades 1-2
Me gusta escribir la realidad
Arroz con leche

Santillana

Escribir para leer

Modern Curriculum Press

Developing Spanish Language Set

Houghton-Mifflin

Un Pequeño Ruide (Level 1)
Siempre Sonaba (Level 1)
El Viento Canta (Level 2)
A Toda Velocidad (Level 2)
Un pequeño rubio (Level 1)
Yo soy yo (Level Comencemos)
Cataplum (Level A)
Siempre cabe uno mas (Level B)
Una Manaña Muy Tempranito
Vamos
Sonrisas
Amigos
Hogares
Fiestas
Juegos
Carreteras
Puentes

Social Studies

Silver Burdett Ginn

Communidades de Nuestro Pais (Grade 3)
Geografia de estaños y ragioness
Familias y sus necesidades (Grade 1)
Communidades y sus necesidades (Grade 2)
Communidades de Nuestro Pais

Troll

Journey Around the World Library
From Seed to Plant
First Bibliographies
Inter-Generational Library
Spanish Treasury
Benito Juarez, Hero of Modern Mexico
Pearl Bailey, With a Song in Her Heart
Robert Clemente, Young Baseball Hero
All Kinds of Families
True Books in Spanish
Fairy Tales in Spanish
A Treasury of Hispanic Culture

Multicultural Biographies (Grades 4-7)
Changing Our World

Graphic Learning

- Social Studies Literature Pack (K-3)

E.S.L.

Edmark Corporation

Reading Milestones (Levels 4-6)

Modern Curriculum Press

Poetry Works
Yes, I Can Read
Stories to Share (Levels I-III)
Thinking About Reading (Levels B, C, D, E)
Stories and Rhymes (Levels A, B)

Ballard and Tighe

Carousel of Ideas (Set 1)
Action Sequence Stories (Act 1)

Stanley M. Indig

Bump and the Trees
Bump's Umbrella
Bump the Builder
Bump and the Bucket
Hello Bump
Bump in the Park
Bump at the Beach
Bump Sings a Song
Children's Read Alongs
Bump at Play
Here is Bump
Bump is Busy
Look at Bump

Fun with A-Z words
Classic Read Alongs

The Wright Corporation

Read Together (Set 1-3)
Twig Book (Set A, B, C)

Sundance

Lizard in the Sun
What is Orange
Ten Little Rabbits

Oxford University Press

Jazz Chants Fairy Tales

APPENDIX B

Class Schedule

Time	8:40-9:25	9:25-10:10	10:10-10:45	10:45-11:40	11:40-12:30	12:30-1:20	1:20-2:10	2:10-2:50
Mon.	Reading	E.S.L. (content areas)	Math (Span.)	Gym	Spanish (reading)	L	E.S.L.	Soc.Studs. (Span./ Eng.)
Tues.	Reading	E.S.L.	Math	Soc. Studs.	Spanish	U	E.S.L.	Gym
Weds.	Reading	E.S.L.	Math	Art	Spanish	N	E.S.L.	Sci. (Span./ Eng.)
Thurs.	Reading	E.S.L.	Math	Art	Spanish	C	E.S.L.	Sci. (Span./ Eng.)
Fri.	Reading	Library	E.S.L.	Math (Span.)	Spanish	H	E.S.L.	Music

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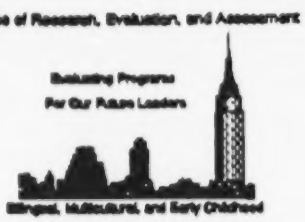
Office of Research, Evaluation, and Assessment
Evaluating Programs
For Our Future Leaders
Bilingual, Multicultural, and Early Childhood

STAFF DEVELOPMENT QUESTIONNAIRE

Program: **Transitional Bilingual Education Project (District 13)**

1	0	5
1	2	3

Directions: Please write "Y" for Yes, "N" for No in the box at the right.

As a result of participating in staff development activities, do you understand the philosophy of the transitional bilingual education program?

☐ 4

THANK YOU.